

todo:

add base 10 visualization

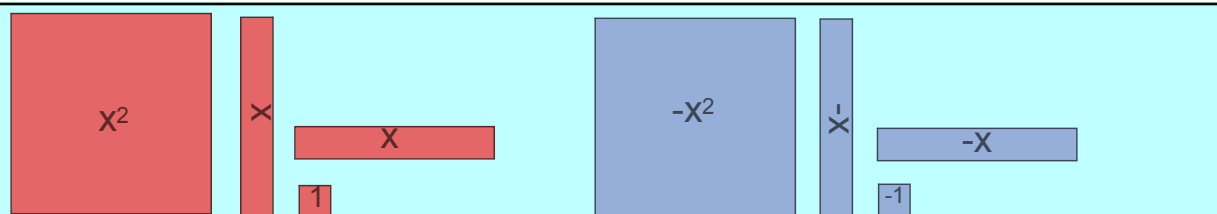
add some area models, identify side lengths

Mar 22-11:30 AM

UNIT 3

Expanding and Factoring Algebraic Expressions

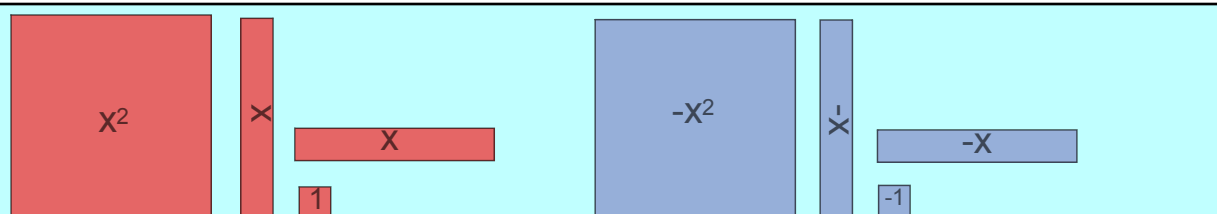
Oct 15-10:23 AM



Evaluate: $(2x^2 - 3x + 1) + (x^2 - x - 4)$



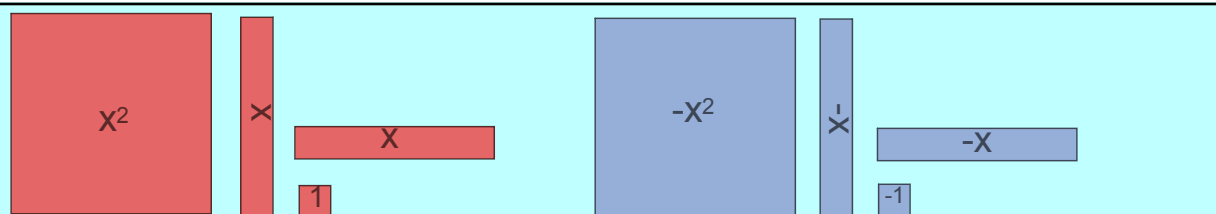
Mar 25-8:02 AM



Evaluate: $-(3 - 2x)$



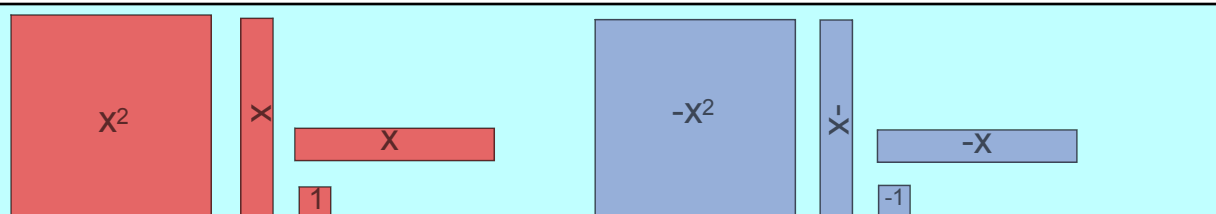
Mar 25-8:02 AM



Evaluate: $-2(x^2 + 2x - 3)$



Mar 25-8:02 AM



Evaluate: $(2x^2 - 2x - 3) - (x^2 - 4x + 2)$



Mar 25-8:02 AM

- Use the base 10 blocks to show $2 \times 3 = 6$
- Now use the base 10 blocks to show $12 \times 13 = \underline{\hspace{2cm}}$
- In your models of $2 \times 3 = 6$ and $12 \times 13 = \underline{\hspace{2cm}}$, what do each of the following represent?

2: _____ 12: _____
3: _____ 13: _____
6: _____ Answer: _____

- Use the base 10 blocks to find the answers to $15 \times 17 = \underline{\hspace{2cm}}$ and $14 \times 18 = \underline{\hspace{2cm}}$
- Can you now find the answer to 27×34 ?
- What are the limitations of base 10 blocks?
- Can you represent 15×17 by a drawing instead of using the base 10 blocks?
- Now try finding the answer to 25×13 by drawing an area model.

Oct 15-8:12 AM

Recall: Multiplying two linear terms together forms an area.

We can often represent this multiplication using algebra tiles.

Mar 26-8:24 AM

x^2

x

x


1

$-x^2$

$-x$

-1

Evaluate: $(x + 2)(x + 3)$



Mar 25-8:02 AM

x^2

x

x


1

$-x^2$

$-x$

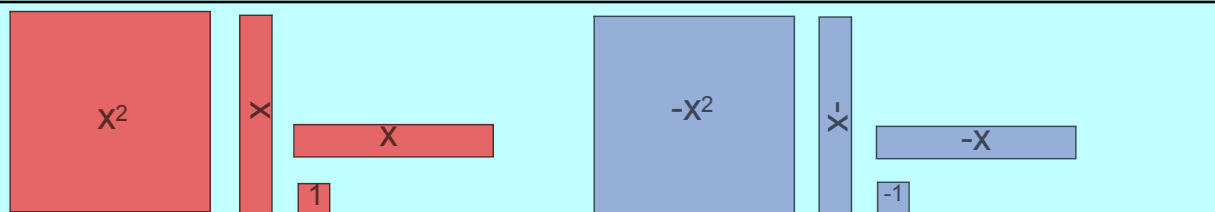
-1

Evaluate: $(x - 3)(x + 1)$



Mar 25-8:02 AM

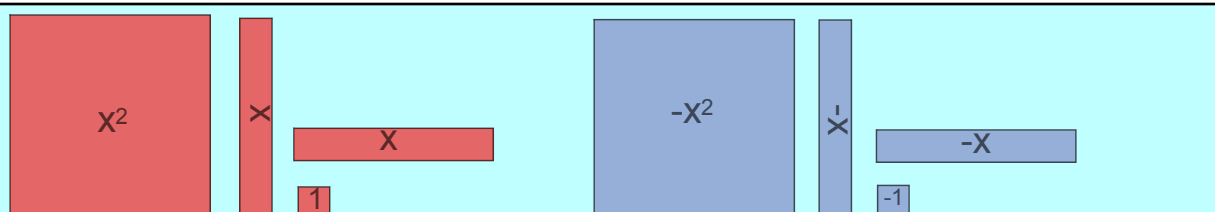
5



Evaluate: $(2x - 1)(x - 2)$



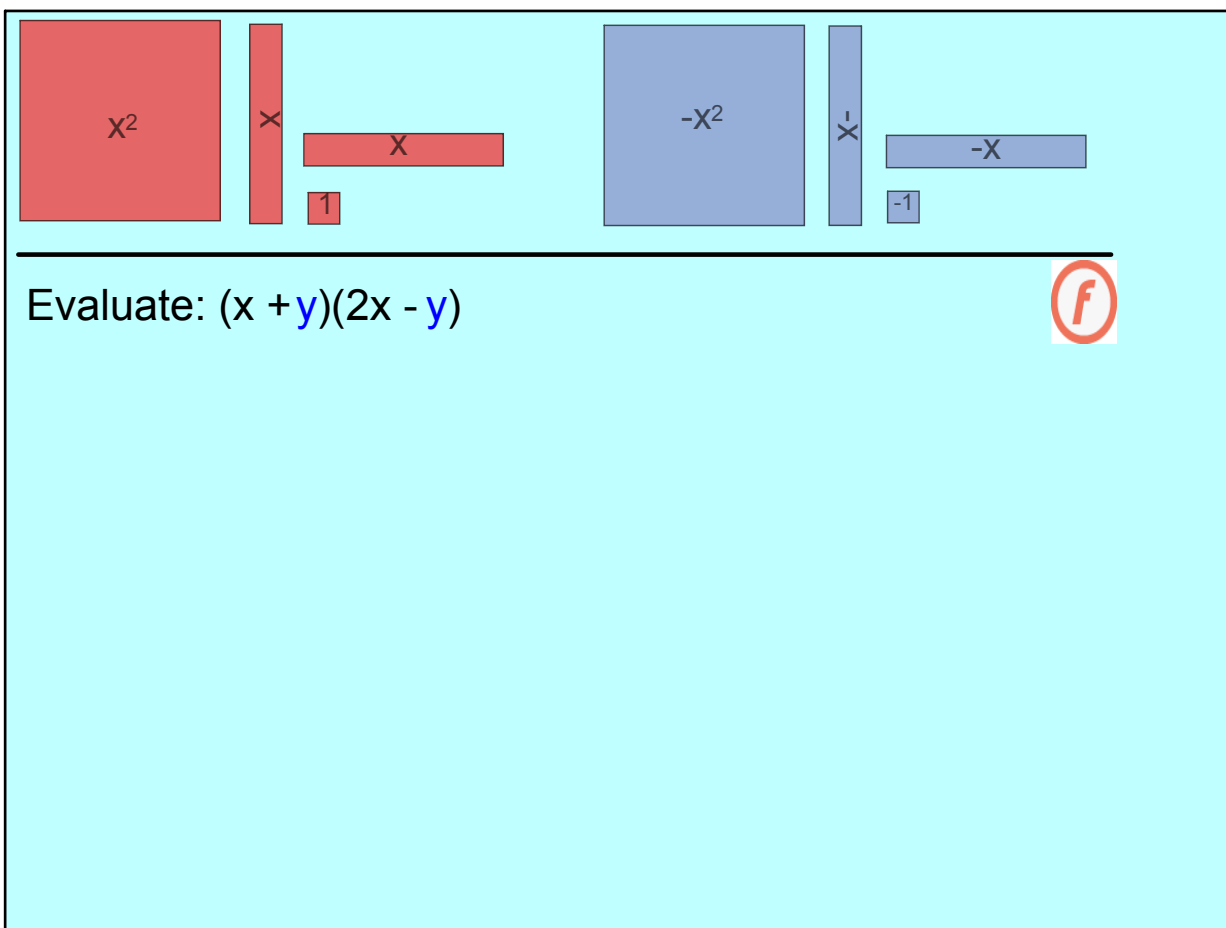
Mar 25-8:02 AM



Evaluate: $(2x - 1)(4 - x)$



Mar 25-8:02 AM



The image shows algebra tiles for the expression $(x + y)(2x - y)$. On the left, red tiles represent $(x + y)$: a large square labeled x^2 , a vertical rectangle labeled x , and a small square labeled 1 . On the right, blue tiles represent $(2x - y)$: a large square labeled $-x^2$, a vertical rectangle labeled x , and a small square labeled -1 . Below the tiles, the text "Evaluate: $(x + y)(2x - y)$ " is displayed. A red circle with a white 'f' is located to the right of the text.

Evaluate: $(x + y)(2x - y)$

Mar 25-8:02 AM